CHAPTER III

METHODOLOGY
Chapter III

METHODOLOGY

The details of procedure to collect data for the study are outlined in this chapter. To gather valid and reliable information for the study, an integrated approach was used.

The investigator searched through literary sources materials, personal interviews and adopted questionnaire survey for this study.

LITERARY SOURCE METHOD

For gathering information about the contributions of the Jesuit Institutions for higher education towards sports and games, materials were collected from the articles and reports published in the college annuals and magazines. Sports journals and dailies were also taken into account.

PRIMARY SOURCES

Best Emphasizes that primary sources are eye witnesses that are reported by the person lived and observed by him. (Best, 1978)

Clarke and Clarke opine that primary sources are original materials in which only one mind comes between the event and the users source. (Clarke and Clarke, 1970)
The data was collected from primary and secondary sources.

The following primary source materials were consulted to obtain needed data for the study.

**Jubilee Volumes**
3. 75 Years of Universal service of St. Xavier’s college.

**Published Materials**
- Characteristics of Jesuit Education.
- College Annual Reports from Jesuit Institutions.
- College Magazines published in colleges.
- Printed records of games and athletics performance.

**SECONDARY SOURCES**
Secondary sources are descriptions of primary sources. They are written by persons, who were not in direct contact with the event reported. More than one mind comes between the original happenings and its description.

Secondary sources were especially useful for the investigator, who could not obtain the original sources because of their non availability.
The following journal and daily containing the statements, reports and articles formed the basis of the secondary sources.

1. The Sportstar

2. The Hindu.

EVALUATION OF LITERARY SOURCE MATERIALS

To check up the authenticity of the information collected, the source materials were subject to a process of criticism, both external and internal.

EXTERNAL CRITICISMS

External criticisms deal with the genuineness of the document itself, whether it is really what it purports or seem to be and whether it means true to the original. (Henry E. Garrett, 1964)

To establish validity of the source materials and to escape from being the victim of fraud, the criticism of the data collected became necessary.

Authorship of books used to collect literary sources was readily determined. The books referred carried the names of the editorial board or the author. It was clearly verified that no writer has used a pseudonym.
The authors of the literature contents utilized in this study did not have any ghost writer. It was noted that most of the sources have primary in nature. Having gone through the papers or documents, the investigator concluded that the collected sources were authentic and there was no question of distortion of facts as far as the sources were concerned.

INTERNAL CRITICISM

Internal criticism is concerned with the accuracy of the statements. Evaluation is transferred from authenticity of the document to the trustworthiness of its contents. (Clarke and Clarke, 1970)

The following points would serve to clarify this form of criticism.

1. The volumes and the annuals were written by the staff of the colleges very seriously.
2. There was no place for any fun or farce in writing it.
3. The documents were not issued under pressure to add or to omit facts.
4. The documents gave a true picture about the contributions of the Jesuit Institutions.
5. Facts in the documents were collected by experts.

Hence, the obtained data were accurate and found worthy of inclusion and analysis in the study.
INTERVIEW TECHNIQUE

The interview is better method of getting needed information than sending a questionnaire. The questionnaire may reach or may not reach persons and one may not get clear information from respondents. The interviewer gathers data from individuals through face to face contact. In the interview technique, when one ask a question to the respondent he can ask further questions based on his earlier response. The interview in essence has been an oral questionnaire. It has the very good advantage of ensuring greater return.

THE CHARACTERISTICS OF THE INTERVIEW

1. The information gathered through interview is reliable.

2. The meaning of the question can be interpreted till the respondents understand it.

3. The personal contact has the advantage of drawing out the information on the spot by follow up secondary simpler questions.

4. The interview gives an opportunity for the interviewer to give information and to develop a good relationship with the respondent.

5. Being direct, its validity is reliable.
The investigator visited Chennai, Madurai and Tirunelveli and conducted separate interviews with the Principals of the Jesuit Colleges. The investigator preferred interview technique to collect necessary information for his study about the Jesuit institutions' contribution to sports.

The purpose of the investigation was explained clearly to the respondents with the details of information needed from them. The investigator had a clear idea about the information he needed. He clearly explained that the questions were prepared for the interview with the possibility of getting important and needed data. The investigator made his conversation in such a way that most of the areas of the study were covered. The respondents were told approximately how long the interview would last. The actual wording of the responses were recorded.

INTERVIEW WITH REV. FR. JEYARAJ DONATUS, SJ. JESUIT PROVINCIAL OF MADURAI PROVINCE.

The investigator held the scheduled interview with the provincial on 14th February 1999. The interview was tape recorded. The presence of a tape recorder did not affect the freedom of either the interviewer or interviewee.

Reliability of the Interview

It was indicated by the investigator that the interview was in no way commercial and was ment only for a research study. Rev. Fr. Jeyaraj Donatus, SJ., Jesuit Provincial voluntarily accepted to give
information, which was highly reliable and honest. The respondent was particularly aware that a check on truthfulness of the responses was possible, since the investigator was interested in conducting similar interviews with principals of the Jesuit Colleges. Hence, the responses collected through the interviews can be held as highly honest. The written form of the interview conversation is shown in Appendix B-1.

INTERVIEW WITH REV. FR. IGNACIMUTHU, SJ. PRINCIPAL LOYOLA COLLEGE, CHENNAI.

An interview was conducted with the Principal of Loyola College, Chennai. The conversation was tape recorded on 28th Jan. 1999, at Loyola College. He had held high posts as the director of New Hostel at St. Joseph's College and the Principal of St. Xavier's college.

Reliability of the Interview

Rev. Fr. Ignacimuthu was much pleased to sit for the interview and showed greater interest in answering the questions. He has abundant information about the contribution of Jesuit institutions in the field of sports and games. The written form of the interview conversation shown in appendix B-2.
INTERVIEW WITH REV. FR. ANTONY A. PAPPURAJ, SJ. PRINCIPAL, ST. XAVIER’S COLLEGE, PLAYAMKOTTAI

An interview was conducted with the Principal of St. Xavier’s College, Palayamkottai. The Conversation was tape recorded on 22nd April 1999 at St. Xavier’s college. Earlier he had served as Vice Principal at St. Xavier’s college and also as Games President at Loyola College. The written form of the interview conversation is shown in Appendix B-3.

INTERVIEW WITH REV. FR. G. JOSEPH ANTONYSAMY, SJ. GAMES PRESIDENT, ARUL ANANDAR COLLEGE, KARUMATHUR

An Interview was conducted with the Games President of Arul Anandar College, Karumathur. The conversation was tape recorded on 26th April 1999. Earlier he had served as the Director of Xavier Hostel at St. Xavier’s College. The written form of the interview conversation is shown in Appendix B-4.

QUESTIONNAIRE SURVEY

The investigator constructed a questionnaire consisting of statements to get responses from the Alumni, Students, Faculty and Administrators of Jesuit Institutions.

Development of the questionnaire

The following flow chart would give a clear idea, the way the questionnaire was developed.
PRE PILOT STUDY

Pre pilot study included the following:

a) Pooling of statements

The pilot study was concerned with the gathering of statements relevant to the study. The pooling of the preliminary statements was done through the following sources:

1. Formal and informal discussions with experts in the teaching faculty of physical education and staff in the other departments.

2. From literature such as college magazines, calendars and other books available from the Jesuit institutions dealing with various aspects of achievements.

3. Informal discussions with experts in particular games, such as coaches, personnel from the various associations and old players of the colleges.

Based on the information collected from these sources, many statements dealing with various factors were pooled.

b) Selection of statements

Once the statements were collected, they were scrutinized and only relevant statements were preserved and irrelevant items were deleted.
The following criteria was used for the construction of statements in the pilot study.

1. The statements are structured in simple understandable language.

2. Statements did not have ambiguity in their meaning.

3. Statements which were relevant to the study only were considered for inclusion in the questionnaire.

4. The investigator deleted those statements in the questionnaire which would not receive any option from the respondent.

5. The questionnaire was divided under 10 factors.

PILOT STUDY

JURY OPINION

The collected statements were sent to the supervising experts in physical education and education requesting them to give their opinion regarding the suitability, relevance and clarity of the statements.

Suggestions and remarks offered by the juries were considered. The statements were put into an order by editing, rewording and eliminating certain difficult statements.
For the pilot study, 20 questionnaires were sent to all the Jesuit colleges to get them responded by the Alumni, Students, Faculty and Administrators.

**Finalisation phase**

On the basis of the pilot study conducted, the statements for the questionnaire were finalised to collect opinion from the respondents concerned.

The questionnaires were sent to various persons like Alumni, Students, Faculty and Administrators numbering two hundred and fifty in all.

**CONSTRUCTION OF SCALE**

It was decided to use only four options removing ‘undecided’ Likert scale is found helpful in estimating the strength of feeling. (R. Likert, 1932)

The investigator preferred only four options in the Likert scale to force the respondents to choose between favourable and unfavourable responses. If there is option called ‘Undecided’ or ‘not sure’ the respondents might evade their answers and they will avoid making real choice and there may be no commitment in answering the responses.
The respondents chosen for this study were Jesuit college Alumni, Students, Faculty and Administrators.

The final format of the scale took shape as given below.

<table>
<thead>
<tr>
<th>Jesuits Play a vital role in the development of sports and games</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**RELIABILITY OF THE QUESTIONNAIRE**

Reliability is the consistency with which a tool measures, what it measures.

In Research, the actual to true measure, of any quality in a total population is seldom, if ever, obtained. It is impractical, if not impossible, to test all individuals in the population for which the test is intended. Fortunately, such a practice is unnecessary; a sample when properly drawn, closely resembles all individuals in the population. (Clarke and Clarke, 1970)

The reliability of the questionnaire was established using internal consistency method. The internal consistency method stresses the inter correlation of the statements in the test and correlation of the statements with the test as a whole.
VALIDITY

The questionnaires were subjected to 'face validity' test. A test may be treated for 'face validity' by judgment process. A test is said to have face validity, when it appears to measure whatever the author had in mind, namely, what he thought he was measuring. (Henry E. Garrett, 1969)

In the present study, it was thought that the tools, which contained the various factors, intended to measure the construction.

The validity of a test, or of any measuring instrument depends upon the fidelity with which it measures what it purports to measure. (Henry E. Garrett, 1969)

In this study, content validity was established. Content validity involves essentially the systematic examination of the test content to determine, whether it covered a representative sample of the behaviour domain to be covered. (Anne Anastasi, 1976)

Nunnaly noted that, rather than testing the validity of measures after they are constructed, one should ensure validity by the plan and procedures of instrument construction. There are two major standards for ensuring content validity (1) a representative collection of items, and (2) 'sensible' methods of test construction. (J.C. Nunnaly, 1972)
The statements forming the questionnaire were identified after an exhaustive review by consultation with subject experts.

After the various factors were identified, the pooling of statements for each factor of the questionnaire was carried out, by editing, rewording and eliminating confusing terms and statements. The statements were subjected to jury opinion. On the basis of their suggestions, some of the questions were modified and some eliminated. The validation of contents through competent judgment is most satisfactory when the sampling of items is widely judicious and then adequate standardisation groups are utilized.

STATISTICAL TECHNIQUES ADOPTED IN THE STUDY

The scores obtained in the questionnaires responded by Alumni, Students, Faculty and Administrators were put to the following statistical analysis.

PRODUCT MOMENT COEFFICIENT OF CORRELATION

To establish the reliability of the constructed questionnaire through internal consistency method, co-efficient of correlation was calculated. Coefficient of correlation is the closeness with which traits together vary from their respective means. The range of possible magnitude of correlation extends from +1 to -1. (Clarke and Clarke, 1972)
SPEARMAN BROWN PROPHECY FORMULA

As the split-half test yields lower correlation because of the reduction in size of half the number of statements, correlation may be found out by the application of Spearman Brown prophecy formula. Hence, Spearman Brown Prophecy, formula was applied in this study. (John W. Best, 1978)

ONE WAY ANALYSIS OF VARIANCE

Analysis of variance is an extension of the significance of differences between the means. By analysis of variance, an overall test of significance is made between any number of sample means. ‘F’ ratio is derived which indicates whether or not any significant differences exist. ‘F’ ratio is calculated for the total scores obtained in the questionnaire categorising respondents. (Clarke and Clarke, 1972).

POST HOC TEST OF SIGNIFICANCE

Scheffe's post hoc test was used to determine the significance between all pair of means where 'F' ratio were significant. The technique adopted for conducting interviews, the method used to construct valid and reliable questionnaires which would seek information about the contributions of Jesuit Institutions for higher education towards sports and games in Tamilnadu from the Jesuit Alumni, Students, Faculty and Administrators (ie. both players and non players). The tool used and the procedure followed to analyse the contributions have been explained.